

Notes on the Zebra Finch

E. F. BOEHM

Zebra Finches *Taeniopygia castanotis* occur irregularly on the Mount Mary Plains, South Australia, and their presence is not always dependent on very wet and good (farming) seasons. In the exceptionally good years of 1973-74, there were few of these birds present. During severe droughts there may be no finches in the area.

Breeding in the region takes place over a fairly short period; in suitable seasons nesting occurs only from October to April. In some seasons seeds of exotic species of *Cruciferae*, especially Smooth Mustard *Sisymbrium erysimoides* and London Rocket *S. irio* provide large quantities of food for Zebra Finches.

While the species is generally seen in pairs and small flocks of up to 10 birds, larger flocks of 30 to 50 occasionally appear late in the spring (Boehm, 1957). European settlement with the resultant clearing of much scrub, the creation of grassland and provision of surface water almost certainly has led to larger and more frequent irruptions of Zebra Finches from the drier inland regions.

Immelmann (1965) considered that in eastern and southern Australia breeding of the species is mostly influenced by temperature. Studies by Frith and Tilt (1959) indicated that in irrigated areas in southern Australia these finches breed much more regularly than in nearby areas subject to irregular rainfall and without irrigation.

During the period 1963-71 a total of 375 Zebra Finches was banded* mainly by the writer on the Mount Mary Plains and at the nearby township of Eudunda, and 58 (15%) were retrapped. The retrap data showed that some individuals remained in winter, apparently when conditions were suitable. Generally, there is a marked reduction of numbers to vanishing point during winter. There was a fairly even distribution of sexes in the population studied and sampled. Of 311 sexed birds, 154 were males and there were 157 females.

The mass of 117 finches was taken. Of these 109 ranged from 11-14 grams, while at the

extremes, four weighed 15 g, three weighed 10 g and one bird weighed only 9 g. Most birds (72) ranged from 12-13 g. It was noticed that in severe heat waves birds coming to water from a distance, registered quite a low mass, probably through some degree of dehydration. For example, on one very hot day (8 December 1968) a group of Zebra Finches including adults of both sexes was netted at a small artificial waterhole near the homestead. They were unbanded when caught and the mass of each ranged from 9-11 g. One male (020-89313) which had a mass of 9 g when first caught, was 12 g when recaptured 26 days later.

A total of 289 of the 375 Zebra Finches was banded in the Sutherlands and Bower area of the Mount Mary Plains during the survey period and it included 24 nestlings. Of those banded, 30 (10%) were retrapped. Only one banded as a nestling (021-17794) was subsequently retrapped; it was netted five kilometres east of the banding place 10 months later. Of the adults, a female (021-17830) was retrapped five months later, a male (021-17844) six months later and a second female (021-17778) seven months later†.

In order to find out how Zebra Finches behaved under somewhat more favourable surroundings near the Mount Lofty Range, some were banded at Eudunda township, about 20 km west of the main project area. Assisted by Mr. L. C. Heinicke, 86 were banded in 1966-68, only in the autumn and winter months. Thirty-nine birds were captured with drop nets and 47 were taken in maze traps. A total of 28 (32%) locally banded finches was retrapped at Eudunda and no banded bird was recovered from the main survey area further east. Generally the results at

* Bands used were provided by the Australian Bird-banding Scheme, Division of Wildlife Research, CSIRO.

† The longest elapsed time from date of banding to latest recovery is 3 years 2 months, and the longest recorded movement is 25 km.

Eudunda were better than at Sutherlands-Bower. Six birds were recovered six months or more after banding; one female (021-33331) was recovered 12 months later and another (021-33352) 23 months after banding.

These results nevertheless contrast rather sharply with retrap data from a more sedentary small Passerine, the Eastern Whiteface *Apheloccephala leucopsis* in the same general region (see Boehm 1970).

Some 12 000 Zebra Finches were banded in the Australian Bird-banding Scheme to 30 June 1972 (Purchase, 1973) without any outstanding longevity data being reported; 877 (7%) were retrapped. Retrap figures in areas where banding is carried out regularly over long periods are invariably higher than those for the overall banding figures for the whole of Australia. Nevertheless, the relatively few birds retrapped in the study is no doubt partly due to the nomadic habits of these birds. This nomadism, in addition to taking the birds out of the banding locations, also possibly causes an increase in mortality when they encounter unfamiliar situations in their search for food, water and refuge from predators.

While mist nets were used in the main project area where the birds were caught in the course of routine operations, at Eudunda they were attracted to traps by small seeds as bait. Nevertheless, there were Zebra Finches at Eudunda at times when none was to be found further east on the drier plains. The results therefore can be considered as significant.

References

- Boehm, E. F. (1957). 'Perching Birds (Passeriformes) of the Mount Mary Plains, South Australia', *Emu* 57: 311-324.
- Boehm, E. F. (1970). 'Notes on the Eastern Whiteface', *Aust. Bird Bander* 8: 79-81.
- Frith, H. J. and R. A. Tilt (1959). 'Breeding of the Zebra Finch in the Murrumbidgee Irrigation Area, New South Wales', *Emu* 59: 289-295.
- Immelmann, K. (1965). 'Versuch einer ökologischen Verbreitungsanalyse beim australischen Zebrafinken, *Taeniopygia guttata castanotis* (Gould)', *J. Orn.* 106: 415-430.
- Purchase, D. (1973). 'Eighteenth Annual Report of the Australian Bird-banding Scheme, July 1971 to June 1972', *Tech. Pap. Div. Wildl. Res. CSIRO, Aust.* No. 27.

E. F. Boehm,
Sutherlands, S.A.

Whiskered Tern Recovery in Java

In the first week of February 1976, a student from the Academy of Forestry, Bandung, Indonesia, digressed from his allotted task of surveying the timber near Cirebon, north Java (spelt Tjirebon on most maps) to examine the birds caught by the local people. The method of catching is not known but undoubtedly they were to be eaten. Two of the birds were carrying CSIRO bands and three weeks later the student wrote to the CSIRO — "I have found two birds. I will inform you that Sign on the ring which number 550-52714, 032-10151. Would you please send me your idea".

The first number (550-52714) was obviously incorrect for a CSIRO band; the second band (032-10151) had been placed on a Red-necked Stint *Calidris ruficollis* by J. A. K. Lane at Pelican Point, Perth, W.A. on 28 March 1974. A letter from the Secretary of the Australian Bird-banding Scheme (Mr David Purchase) to Dr Soekarja Somadikarta at the Zoological Museum, Bogor, Indonesia seeking clarification of the incorrect number soon produced results. One band had been lost but the other had been taken to the museum where it was correctly read as 050-52714.

This band had been placed on the leg of a newly hatched Whiskered Tern *Chlidonias hybrida* on 18 November 1974 at Ticehurst Swamp, Ivanhoe, western New South Wales and the recovery at Cirebon represents a movement of 5100 km north-west from the banding place. The bird was one of 61 chicks banded by me near Ivanhoe about that time and, hopefully, more recoveries may yet be reported.

This is the first recovery in Indonesia of a Whiskered Tern banded in Australia although a previous recovery was reported from the Sepik River, Papua New Guinea (*Aust. Bird Bander* 7: 41).

J. N. Hobbs,
Police Station,
Ivanhoe, N.S.W.